CLAIM AMENDMENTS

1. (Previously Presented) An ablation probe, comprising:

an elongated shaft having a distal end;

an ablative element disposed on the distal end of the shaft;

a lumen longitudinally extending within the shaft; and

a porous structure extending along a substantial entirety of the shaft in fluid communication with the lumen, the porous structure having ~~a porosity in the range of 20-80 percent~~ pores with effective diameters in the range of 1-50 microns.

2. (Currently Amended) The ablation probe of claim 1, wherein the porous structure has a porosity ~~is~~ in the range of 30-70 percent.

3. (Original) The ablation probe of claim 1, wherein the shaft is a rigid shaft.

4. (Original) The ablation probe of claim 1, wherein the porous structure is ~~electrically~~ conductive.

5. (Previously Presented) The ablation probe of claim 1, wherein the porous structure is composed of a metallic substance.

6. (Original) The ablation probe of claim 1, wherein the porous structure has ~~pores with effective diameters in the range of 1-50 microns~~ a porosity in the range of 20-80 percent.

7. (Original) The ablation probe of claim 1, wherein the porous structure has interconnecting pores.

8. (Original) The ablation probe of claim 1, wherein the entirety of the shaft is composed of the porous structure.

9. (Original) The ablation probe of claim 1, wherein the ablative element comprises at least one electrode.

10. (Original) The ablation probe of claim 1, further comprising a connector assembly mounted to a proximal end of the shaft, wherein the connector assembly comprises a port in fluid communication with the lumen.

11. (Previously Presented) An ablation probe, comprising:

an elongated shaft having a distal end;

an ablative element disposed on the distal end of the shaft; ~~and~~

a lumen longitudinally extending within the shaft; and

a microporous structure extending along a substantial entirety of the shaft in fluid communication with the lumen.

12. (Original) The ablation probe of claim 11, wherein the shaft is a rigid shaft.

13. (Original) The ablation probe of claim 11, wherein the microporous structure is electrically conductive.

14. (Original) The ablation probe of claim 11, wherein the microporous structure has interconnecting pores.

15. (Original) The ablation probe of claim 11, wherein the ablative element is composed of the microporous structure.

16. (Original) The ablation probe of claim 11, wherein the ablative element comprises at least one electrode.

17. (Previously Presented) The ablation probe of claim 11, wherein the microporous structure is composed of a metallic substance.

18. (Original) The ablation probe of claim 11, further comprising a connector assembly mounted to a proximal end of the shaft, wherein the connector assembly comprises a port in fluid communication with the lumen.

19. (Previously Presented) An ablation probe, comprising:

an elongated shaft having a distal end;

an ablative element disposed on the distal end of the shaft; ~~and~~

a lumen longitudinally extending within the shaft; and

a porous structure extending along a substantial entirety of the shaft in fluid communication with the lumen, the porous structure having interconnecting pores.

20. (Original) The ablation probe of claim 19, wherein the pores are interconnected in a random arrangement.

21. (Original) The ablation probe of claim 19, wherein the shaft is a rigid shaft.

22. (Original) The ablation probe of claim 19, wherein the porous structure is electrically conductive.

23. (Original) The ablation probe of claim 19, wherein the ablative element is composed of the porous structure.

24. (Original) The ablation probe of claim 19, wherein the ablative element comprises at least one electrode.

25. (Original) The ablation probe of claim 19, further comprising a connector assembly mounted to a proximal end of the shaft, wherein the connector assembly comprises a port in fluid communication with the lumen.

26. (Currently Amended) A tissue ablation system, comprising:

an ablation probe having an ablative element and a perfusion lumen, substantially the entire length of the ablation probe being composed of a porous structure in fluid communication with the perfusion lumen, the porous structure having ~~a porosity in the range of 20-80 percent~~ pores with effective diameters in the range of 1-50 microns;

an ablation source operably coupled to the ablative element; and

a fluid source operably coupled to the perfusion lumen.

27. (Currently Amended) The tissue ablation system of claim 26, wherein the porous structure has a porosity ~~is~~ in the range of 30-70 percent.

28. (Original) The tissue ablation system of claim 26, wherein the porous structure is electrically conductive.

29. (Currently Amended) The tissue ablation system of claim 26, wherein the porous structure has ~~pores with effective diameters in the range of 1-50 microns~~ a porosity in the range of 20-80 percent.

30. (Original) The tissue ablation system of claim 26, wherein the porous structure has interconnecting pores.

31. (Previously Presented) The tissue ablation system of claim 26, wherein the ablation probe is a rigid probe.

32. (Original) The tissue ablation system of claim 26, wherein the ablative element comprises at least one electrode.

33. (Previously Presented) The tissue ablation system of claim 26, wherein the ablation source is a radio frequency (RF) ablation source.

34. (Original) The tissue ablation system of claim 26, further comprising a pump assembly for pumping fluid from the fluid source and through the perfusion lumen of the ablation probe.

35. (Previously Presented) A tissue ablation system, comprising:

an ablation probe having an ablative element and a perfusion lumen, substantially the entire length of the ablation probe being composed of a microporous structure in fluid communication with the perfusion lumen;

an ablation source operably coupled to the ablative element; and

a fluid source operably coupled to the perfusion lumen.

36. (Original) The tissue ablation system of claim 35, wherein the porous structure has interconnecting pores.

37. (Previously Presented) The tissue ablation system of claim 35, wherein the ablation probe is a rigid probe.

38. (Original) The tissue ablation system of claim 35, wherein the ablative element comprises at least one electrode.

39. (Previously Presented) The tissue ablation system of claim 35, wherein the ablation source is a radio frequency (RF) ablation source.

40. (Original) The tissue ablation system of claim 35, further comprising a pump assembly for pumping fluid from the fluid source and through the perfusion lumen of the ablation probe.

41. (Previously Presented) A tissue ablation system, comprising:

an ablation probe having an ablative element and a perfusion lumen, substantially the entire length of the ablation probe being composed of a porous structure in fluid communication with the perfusion lumen, the porous structure having interconnecting pores;

an ablation source operably coupled to the ablative element; and

a fluid source operably coupled to the perfusion lumen.

42. (Original) The tissue ablation system of claim 41, wherein the pores are interconnecting in a random arrangement.

43. (Previously Presented) The tissue ablation system of claim 41, wherein the ablation probe is a rigid probe.

44. (Original) The tissue ablation system of claim 41, wherein the ablative element comprises at least one electrode.

45. (Previously Presented) The tissue ablation system of claim 41, wherein the ablation source is a radio frequency (RF) ablation source.

46. (Original) The tissue ablation system of claim 41, further comprising a pump assembly for pumping fluid from the fluid source and through the perfusion lumen of the ablation probe.

47-56. (Cancelled).

57. (Previously Presented) The ablation probe of claim 11, wherein the entirety of the shaft is composed of the microporous structure.

58. (Previously Presented) The ablation probe of claim 19, wherein the entirety of the shaft is composed of the porous structure.

59. (Previously Presented) The tissue ablation system of claim 26, wherein the ablation probe comprises a shaft, the entirety of which is composed of the porous structure.

60. (Previously Presented) The tissue ablation system of claim 35, wherein the ablation probe comprises a shaft, the entirety of which is composed of the microporous structure.

61. (Previously Presented) The tissue ablation system of claim 41, wherein the ablation probe comprises a shaft, the entirety of which is composed of the porous structure.